

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**



US Patent & Trademark Office

[Subscribe \(Full Service\)](#) [Register \(Limited Service, Free\)](#) [Login](#)
Search: The ACM Digital Library The Guide

THE ACM DIGITAL LIBRARY

[Feedback](#) [Report a problem](#) [Satisfaction survey](#)
Terms used [index](#)[tab node tree attribute display navigat leaf or child browser](#)

Found 10,804 of 138,663

Sort results by

 Save results to a Binder

[Try an Advanced Search](#)

Display results

 Search Tips

[Try this search in The ACM Guide](#)
 Open results in a new window

Results 1 - 20 of 200

Result page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)

Best 200 shown

Relevance scale

[1 Innovative Document Systems: The multivalent browser: a platform for new ideas](#)

Thomas A. Phelps, Robert Wilensky

November 2001 **Proceedings of the 2001 ACM Symposium on Document engineering**
 Full text available: [pdf\(188.51 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The Multivalent Browser is built on a architecture that separates functionality from concrete document format. Almost all functionality is made available via relatively small modules of code called behaviors that programmers can write to extend the core system. Behaviors can be as significant and powerful as parser-renderers for scanned paper, HTML, or TeX DVI; as fine-grained as hyperlinks, cookies, and the disabling of menu items; and as innovative or uncommon as in situ annotations, "lenses", ...

Keywords: annotation, architecture, digital, document, multivalent behavior, paper, scanned

[2 Research sessions: XML I: QURSED: querying and reporting semistructured data](#)

Yannis Papakonstantinou, Michalis Petropoulos, Vasilis Vassalos

June 2002 **Proceedings of the 2002 ACM SIGMOD international conference on Management of data**
 Full text available: [pdf\(1.54 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

QURSED enables the development of web-based query forms and reports (QFRs) that query and report semistructured XML data, i.e., data that are characterized by nesting, irregularities and structural variance. The query aspects of a QFR are captured by its query set specification, which formally encodes multiple parameterized condition fragments and can describe large numbers of queries. The run-time component of QURSED produces XQuery-compliant queries by synthesizing fragments from the query set ...

[3 MAPA: a system for inducing and visualizing hierarchy in Websites](#)

David Durand, Paul Kahn

May 1998 **Proceedings of the ninth ACM conference on Hypertext and hypermedia : links, objects, time and space---structure in hypermedia systems: links, objects, time and space---structure in hypermedia systems**
 Full text available: [pdf\(1.52 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

[4 Usability and accessibility: Hearsay: enabling audio browsing on hypertext content](#)

I. V. Ramakrishnan, Amanda Stent, Guizhen Yang

May 2004 Proceedings of the 13th conference on World Wide WebFull text available:  pdf(974.86 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper we present HearSay, a system for browsing hypertext Web documents via audio. The HearSay system is based on our novel approach to automatically creating audio browsable content from hypertext Web documents. It combines two key technologies: (1) automatic partitioning of Web documents through tightly coupled structural and semantic analysis, which transforms raw HTML documents into semantic structures so as to facilitate audio browsing; and (2) VoiceXML, an already standardized tech ...

Keywords: HTML, VoiceXML, World Wide Web, audio browser, semantic analysis, structural analysis, user interface

5 Querying structured documents with hypertext links using OODBMS 

V. Christophides, A. Rizk

September 1994 **Proceedings of the 1994 ACM European conference on Hypermedia technology**Full text available:  pdf(1.32 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Hierarchical logical structure and hypertext links are complementary and can be combined to build more powerful document management systems. Previous work exploits this complementarity for building better document processors, browsers and editing tools, but not for building sophisticated querying mechanisms. Querying in hypertext has been a requirement since [19] and has already been elaborated in many hypertext systems, but has not yet been used for hypertext systems superimposed on an und ...

Keywords: hypertexts, information retrieval, object oriented databases, path expressions, query languages, structured documents

6 Automatic generation of diagrammatic Web site maps 

Robert Inder, Jonathan Kilgour, John Lee

February 1998 **Proceedings of the 1998 ACM symposium on Applied Computing**Full text available:  pdf(1.12 MB) Additional Information: [full citation](#), [references](#), [index terms](#)

Keywords: World Wide Web, navigation, site map

7 Interactive audio documents 

T. V. Raman, D. Gries

October 1994 **Proceedings of the first annual ACM conference on Assistive technologies**Full text available:  pdf(630.47 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Communicating technical material orally is often hindered by the relentless linearity of audio; information flows actively past a passive listener. This is in stark contrast to communication through the printed medium, where we can actively peruse the visual display to access relevant information. ASTER is an interactive computing system for audio formatting electronic documents (presently, documents wrt ...

8 Query Processing: Towards a visual query interface for phylogenetic databases 

Hasan M. Jamil, Giovanni A. Modica, Maria A. Teran

October 2001 **Proceedings of the tenth international conference on Information and knowledge management**Full text available:  pdf(3.74 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Querying and visualization of phylogenetic databases remain a great challenge due to their

complex tree type semi structured nature. Naturally, successful phylogenetic databases such as the *Tree of Life* database at the University of Arizona are implemented as Web documents in HTML. While Web implementation of such databases facilitate the representation, and in part, visualization of their contents, querying remains an issue. The interoperability of Web-based phylogenetic databases with o ...

Keywords: information retrieval, phylogenies, query language, relational database, tree and semi structured data, visualization, web

9 Document querying and transformation: Lazy XSL transformations

Steffen Schott, Markus L. Noga

November 2003 **Proceedings of the 2003 ACM symposium on Document engineering**

Full text available:  pdf(335.83 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

We introduce a lazy XSLT interpreter that provides random access to the transformation result. This allows efficient pipelining of transformation sequences. Nodes of the result tree are computed only upon initial access. As these computations have limited fan-in, sparse output coverage propagates backwards through the pipeline. In comparative measurements with traditional eager implementations, our approach is on par for complete coverage and excels as coverage becomes sparser. In contrast to eag ...

10 Distributed, Web-based GIS: A systematic approach to reduction of user-perceived response time for GIS web services

Shengru Tu, Xiangfeng He, Xuefeng Li, Jay J. Ratcliff

November 2001 **Proceedings of the ninth ACM international symposium on Advances in geographic information systems**

Full text available:  pdf(1.62 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

The research of Internet distribution of GIS contents is still in its infancy. This paper reports an implementation of a systematic approach to optimize Internet distribution of GIS datasets. The goal is to reduce user-perceived response time and improve users' navigation efficiency. On the server side, a large GIS dataset associated with a map is decomposed into small blocks and organized into an overview guiding hierarchy. On the client side, locality-based caching and pre-fetching techniques a ...

Keywords: GIS, Java, applet, caching, hierarchical model, pre-fetching, response time, web

11 Contexts—a partitioning concept for hypertext

Norman M. Delisle, Mayer D. Schwartz

April 1987 **ACM Transactions on Information Systems (TOIS)**, Volume 5 Issue 2

Full text available:  pdf(1.49 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Hypertext systems provide good information management support for a wide variety of documentation efforts. These efforts range from developing software to writing a book. However, existing hypertext systems provide poor support for collaboration among teams of authors. This paper starts by briefly describing properties of several existing hypertext systems. Then several models for forming partitions in a hypertext database are examined and contexts, a partitioning scheme that supports multi ...

12 From text to hypertext by indexing

Airi Salminen, Jean Tague-Sutcliffe, Charles McClellan

January 1995 **ACM Transactions on Information Systems (TOIS)**, Volume 13 Issue 1

Full text available:  pdf(1.98 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

A model is presented for converting a collection of documents to hypertext by means of indexing. The documents are assumed to be semistructured, i.e., their text is a hierarchy of parts, and some of the parts consist of natural language. The model is intended as a framework for specifying hypertextual reading capabilities for specific application areas and for developing new automated tools for the conversion of semistructured text to hypertext. In the model, two well-known paradigms— ...

Keywords: constrained grammars, grammars, hypertext, properties, structured text, test types, text entities, transient hypergraphs

13 Analysis of navigation behaviour in web sites integrating multiple information systems

Bettina Berendt, Myra Spiliopoulou

March 2000 **The VLDB Journal — The International Journal on Very Large Data Bases**,
Volume 9 Issue 1

Full text available:  pdf(281.14 KB) Additional Information: [full citation](#), [abstract](#), [index terms](#)

The analysis of web usage has mostly focused on sites composed of conventional static pages. However, huge amounts of information available in the web come from databases or other data collections and are presented to the users in the form of dynamically generated pages. The query interfaces of such sites allow the specification of many search criteria. Their generated results support navigation to pages of results combining cross-linked data from many sources. For the analysis of visitor naviga ...

Keywords: Conceptual hierarchies, Data mining, Query capabilities, Web databases, Web query interfaces, Web usage mining

14 DEVise: integrated querying and visual exploration of large datasets

M. Livny, R. Ramakrishnan, K. Beyer, G. Chen, D. Donjerkovic, S. Lawande, J. Myllymaki, K. Wenger

June 1997 **ACM SIGMOD Record , Proceedings of the 1997 ACM SIGMOD international conference on Management of data**, Volume 26 Issue 2

Full text available:  pdf(1.61 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

DEVise is a data exploration system that allows users to easily develop, browse, and share visual presentation of large tabular datasets (possibly containing or referencing multimedia objects) from several sources. The DEVise framework is being implemented in a tool that has been already successfully applied to a variety of real applications by a number of user groups. Our emphasis is on developing an intuitive yet powerful set of querying and visualization primitives that can be ...

15 Flexible consistency checking

Christian Nentwich, Wolfgang Emmerich, Anthony Finkelstein, Ernst Ellmer

January 2003 **ACM Transactions on Software Engineering and Methodology (TOSEM)**,
Volume 12 Issue 1

Full text available:  pdf(1.94 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

The problem of managing the consistency of heterogeneous, distributed software engineering documents is central to the development of large and complex systems. We show how this problem can be addressed using xlinkit, a lightweight framework for consistency checking that leverages standard Internet technologies. xlinkit provides flexibility, strong diagnostics, and support for distribution and document heterogeneity. We use xlinkit in a comprehensive case study that demonstrates how design, impl ...

Keywords: CASE tools, consistency management, constraint checking, multiple perspectives

16

Lore: a database management system for semistructured data

Jason McHugh, Serge Abiteboul, Roy Goldman, Dallas Quass, Jennifer Widom
September 1997 **ACM SIGMOD Record**, Volume 26 Issue 3

Full text available:  pdf(1.43 MB) Additional Information: [full citation](#), [abstract](#), [citations](#), [index terms](#)

Lore (for Lightweight Object Repository) is a DBMS designed specifically for managing semistructured information. Implementing Lore has required rethinking all aspects of a DBMS, including storage management, indexing, query processing and optimization, and user interfaces. This paper provides an overview of these aspects of the Lore system, as well as other novel features such as dynamic structural summaries and seamless access to data from external sources.

17 Fast detection of communication patterns in distributed executions

Thomas Kunz, Michiel F. H. Seuren

November 1997 **Proceedings of the 1997 conference of the Centre for Advanced Studies on Collaborative research**

Full text available:  pdf(4.21 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Understanding distributed applications is a tedious and difficult task. Visualizations based on process-time diagrams are often used to obtain a better understanding of the execution of the application. The visualization tool we use is Poet, an event tracer developed at the University of Waterloo. However, these diagrams are often very complex and do not provide the user with the desired overview of the application. In our experience, such tools display repeated occurrences of non-trivial commun ...

18 xlinkit: a consistency checking and smart link generation service

Christian Nentwich, Licia Capra, Wolfgang Emmerich, Anthony Finkelstein

May 2002 **ACM Transactions on Internet Technology (TOIT)**, Volume 2 Issue 2

Full text available:  pdf(463.26 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

xlinkit is a lightweight application service that provides rule-based link generation and checks the consistency of distributed Web content. It leverages standard Internet technologies, notably XML, XPath, and XLink. xlinkit can be used as part of a consistency management scheme or in applications that require smart link generation, including portal construction and management of large document repositories. In this article we show how consistency constraints can be expressed and checked. We des ...

Keywords: Consistency management, XML, automatic link generation, constraint checking

19 A GUI for ps(1) built with mozilla

Nigel McFarlane

July 2004 **Linux Journal**, Volume 2004 Issue 123

Full text available:  html(31.32 KB) Additional Information: [full citation](#), [abstract](#)

Make your apps run anywhere your browser does with the development framework that's already on your desktop.

20 Learning classifiers: Using urls and table layout for web classification tasks

L. K. Shih, D. R. Karger

May 2004 **Proceedings of the 13th conference on World Wide Web**

Full text available:  pdf(357.43 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

We propose new features and algorithms for automating Web-page classification tasks such as content recommendation and ad blocking. We show that the automated classification of Web pages can be much improved if, instead of looking at their textual content, we consider each links's URL and the visual placement of those links on a referring page. These features are unusual: rather than being scalar measurements like word counts they are tree structured---describing the position of the item ...

Keywords: classification, news recommendation, tree structures, web applications

Results 1 - 20 of 200

Result page: **1** [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2004 ACM, Inc.

[Terms of Usage](#) [Privacy Policy](#) [Code of Ethics](#) [Contact Us](#)

Useful downloads:  [Adobe Acrobat](#)  [QuickTime](#)  [Windows Media Player](#)  [Real Player](#)